

Amendment to the Claims

Please amend the claims as shown in the complete listing of the claims below in mark-up format.

1. - 54. Cancelled.

55. A method performed by a platform with respect to a neighbor platform, to join an existing multiple channel communication network of platforms that includes the neighbor platform, the platform and each platform of the network being capable of conveying user traffic via two or more channels, each channel respectively comprising a signaling technology and a direction, the method comprising:

determining the identity of a tile an instance of which is in use by the neighbor platform, wherein

a. a tile comprises a group of sets of channels, each set comprises a unique spatial position relative to the other sets of the group, each set comprises a respective center, each channel of a particular set has a direction away from the center of the set; and

b. the neighbor platform is configured to communicate via a first plurality of channels in accordance with a first set of the group whereby the tile is in use by the neighbor platform and the first set is in use by the neighbor platform;

determining the identity of a second set of the group that is not in use; and

configuring the platform to communicate user traffic via a second plurality of channels in accordance with the second set of the group, wherein the user traffic originates or terminates with any one or more users served by the platform, the neighbor platform, or any platform of the network, whereby the tile is in use by the platform and the second set is in use by the platform.

56. The method of claim 55 wherein determining the identity of the tile comprises receiving network control traffic.

57. The method of claim 56 wherein the network control traffic is conveyed by the neighbor platform to the platform.

58. The method of claim 56 wherein the network control traffic is originated by the neighbor platform.

59. The method of claim 56 wherein the network control traffic is originated by a platform of the network in response to a request transmitted by the platform.

60. The method of claim 55 wherein determining the identity of the tile comprises identifying a signaling technology and a direction of a free channel.

61. The method of claim 55 wherein determining the identity of the tile comprises recalling a description of a tile from memory of the platform.

62. The method of claim 55 wherein determining the identity of the tile comprises determining a magnetic compass bearing.

63. The method of claim 55 wherein determining that a second set is not in use comprises receiving network control traffic.

64. The method of claim 63 wherein the network control traffic is conveyed by the neighbor platform to the platform.

65. The method of claim 63 wherein the network control traffic is originated by the neighbor platform.

66. The method of claim 63 wherein the network control traffic is originated by a platform of the network in response to a request transmitted by the platform.

67. The method of claim 55 wherein communication via a particular channel of the second set comprises receiving user traffic that originated within a sector of the tile.

68. The method of claim 55 wherein communication via a particular channel of the second set comprises conveying user traffic on a path through a sector of the tile.

69. A recorded medium comprising instructions that when executed by a processor of a platform cause the platform to perform a method with respect to a neighbor platform, to join an existing multiple channel communication network of platforms that includes the neighbor platform, the platform and each platform of the network being capable of conveying user traffic via two or more channels, each channel respectively comprising a signaling technology and a direction, the method comprising:

determining the identity of a tile an instance of which is in use by the neighbor platform, wherein

a. a tile comprises a group of sets of channels, each set comprises a unique spatial position relative to the other sets of the group, each set comprises a respective center, each channel of a particular set has a direction away from the center of the set; and

b. the neighbor platform is configured to communicate via a first plurality of channels in accordance with a first set of the group whereby the tile is in use by the neighbor platform and the first set is in use by the neighbor platform;

determining the identity of a second set of the group that is not in use; and

configuring the platform to communicate user traffic via a second plurality of channels in accordance with the second set of the group, wherein the user traffic originates or terminates with any one or more users served by the platform, the neighbor platform, or any platform of the network, whereby the tile is in use by the platform and the second set is in use by the platform.

70. A method performed by a platform, to join an existing multiple channel communication network of platforms, the platform and each platform of the network being capable of conveying user traffic via two or more channels, each channel respectively comprising a signaling technology and a direction, the method comprising:

receiving indicia of a first tile, a first instance of which is in use by a first neighbor platform; wherein

a. the first tile comprises a first group of first sets of channels, each first set comprises a unique spatial position relative to the other first sets of the first group, each first set comprises a respective center, each channel of a particular first set has a direction away from the center of the particular first set; and

b. the first neighbor platform is configured to communicate via a first plurality of channels in accordance with a first set of the first group whereby the first tile is in use by the first neighbor platform and the first set is in use by the first neighbor platform;

receiving indicia of a second tile, a second instance of which is in use by a second neighbor platform; wherein

a. the second tile comprises a second group of second sets of channels, each second set has a unique spatial position relative to the other second sets of the second group, each second set comprises a respective center, each channel of a particular second set has a direction away from the center of the particular second set; and

b. the second neighbor platform is configured to communicate via a second plurality of channels in accordance with a second set of the second group whereby the second tile is in use by the second neighbor platform and the second set is in use by the second neighbor platform;

discovering a third plurality of platforms that are using the first tile;
discovering a fourth plurality of platforms that are using the second tile;
determining whether any particular first set of the first group is compatible with all of the third plurality and all of the fourth plurality of platforms; wherein

a. if compatibility exists, then configuring the platform to communicate via a particular plurality of channels in accordance with the particular first set of the first group whereby the first tile is in use by the platform and the particular set is in use by the platform; and

b. otherwise, initiating cessation of use of the second tile, initiating replacement tiling, then repeating the two steps of discovering and the step of determining whereby the platform, the first neighbor platform, and the second neighbor platform begin use of a replacement tile.

71. A recorded medium comprising instructions that when executed by a processor of a platform cause the platform to perform a method to join an existing multiple channel communication network of platforms, the platform and each platform of the network being capable of conveying user traffic via two or more channels, each channel respectively comprising a signaling technology and a direction, the method comprising:

receiving indicia of a first tile, a first instance of which is in use by a first neighbor platform; wherein

a. the first tile comprises a first group of first sets of channels, each first set comprises a unique spatial position relative to the other first sets of the first group, each first set comprises a respective center, each channel of a particular first set has a direction away from the center of the particular first set; and

b. the first neighbor platform is configured to communicate via a first plurality of channels in accordance with a first set of the first group whereby the first tile is in use by the first neighbor platform and the first set is in use by the first neighbor platform;

receiving indicia of a second tile, a second instance of which is in use by a second neighbor platform; wherein

a. the second tile comprises a second group of second sets of channels, each second set has a unique spatial position relative to the other second sets of the second group,

each second set comprises a respective center, each channel of a particular second set has a direction away from the center of the particular second set; and

b. the second neighbor platform is configured to communicate via a second plurality of channels in accordance with a second set of the second group whereby the second tile is in use by the second neighbor platform and the second set is in use by the second neighbor platform;

discovering a third plurality of platforms that are using the first tile;

discovering a fourth plurality of platforms that are using the second tile;

determining whether any particular first set of the first group is compatible with all of the third plurality and all of the fourth plurality of platforms; wherein

a. if compatibility exists, then configuring the platform to communicate via a particular plurality of channels in accordance with the particular first set of the first group whereby the first tile is in use by the platform and the particular set is in use by the platform; and

b. otherwise, initiating cessation of use of the second tile, initiating replacement tiling, then repeating the two steps of discovering and the step of determining whereby the platform, the first neighbor platform, and the second neighbor platform begin use of a replacement tile.